

## Abstract

An organolithium compound represented by the following general formula (i): (i) [wherein A represents a heteroatom selected among oxygen, nitrogen, sulfur, and phosphorus; Ar represents optionally substituted aryl;  $R^1$  represents  $C_{1-10}$  alkyl;  $R^2$  represents  $C_{1-10}$  alkylene;  $R^3$  represents  $C_{1-10}$  alkyl or a protective group for the functional group -A-H (A is the heteroatom); and when the heteroatom A is oxygen or sulfur, then m and n each is 0 or 1, provided that the sum of m and n is 1, and when the heteroatom A is nitrogen or phosphorus, then m and n each is 0, 1, or 2, provided that the sum of m and n is 2], which has not hitherto been used in anionic polymerization, is used as an anionic polymerization initiator to easily and smoothly produce a polymer having a functional group at an end.